

CNS 10-160B Cask System

Savings = \$4 million

Problem/Need

The Battelle Columbus Laboratories Decommissioning Project (BCLDP) is removing residual radioactive contamination from Battelle facilities and grounds located at Battelle's site near West Jefferson, Ohio. Transuranic (TRU) waste resulting from decontaminating nuclear hot cells and a building that housed a nuclear research reactor is to be shipped to a U.S. Department of Energy facility. The RH-72B cask was specifically designed for transporting TRU waste, but will not be available until fiscal year 2002. BCLDP is to begin shipping its remote-handled (RH) TRU by the beginning of the second quarter of fiscal year 2001.



Technology Description

A commercial Type B transportation cask (the Chem-Nuclear Systems 10-160B cask) will be available during fiscal year 2000. A 10-drum carriage unit fits within the CNS 10-160B, which would minimize drum handling and simplify loading, unloading, and storage. The 10-drum payload is more than three times that of the RH-72B cask. Use of the Chem-Nuclear cask will allow the BCLDP to ship its RH TRU waste in 12 to 15 shipments. Further, the 10-160B does not require the loading and welding equipment required by the RH-72B.

Benefits

Using the CNS 10-160B rather than the RH-72B cask will reduce TRU waste, transportation, and handling costs by more than 60 percent (approximately \$4 million) because more drums can be moved per shipment. Using the CNS 10-160B also will accelerate the shipment of higher activity low-level waste. Availability of the 10-160B cask offers the possibility of shipping lower gamma dose RH TRU waste directly to the Waste Isolation Pilot Plant for placement in a shielded overpack for disposal as contact-handled TRU.

Remote-Handled
TRU Cask System

